

LISTING OF THE CLAIMS

No claims have been changed by this Amendment. A complete listing of the current pending claims is provided below and supersedes all previous claims listing(s). No new matter has been added.

1. (Previously Presented) A method of storing data into a database, comprising:

 identifying the data to load into the database, wherein the data is associated with a schema information;

 identifying the schema information for the data;

 determining whether the schema information and a schema-specific load structure that are used to load the data into the database already exist;

 acquiring the schema information from the data based on a first criteria, wherein the first criteria is associated with determining whether the schema information already exists;

 generating an in memory representation of the schema information to load the data into the database based on the first criteria;

 generating the schema-specific load structure to load the data into the database based on a second criteria, wherein the second criteria is associated with determining whether the schema-specific load structure already exists; and

 storing the generated schema information and schema-specific load structures for subsequent loads of the data.
2. (Canceled)
3. (Previously Presented) The method of claim 1 in which the schema-specific load structures comprise at least one of array column, data stream, dispatch table entry or allocated address space in memory.
4. (Previously Presented) The method of claim 1 in which the schema information comprises at least one of column type, column number or column identifier.
5. (Previously Presented) The method of claim 1 in which the schema information is protocol neutral.

6. (Previously Presented) The method of claim 1 in which the schema information can be used by multiple different protocol-based load procedures.
7. (Previously Presented) The method of claim 6 in which the multiple different protocol-based load procedures load data having different protocols, wherein the protocols comprise the File Transfer Protocol or the Hypertext Transfer Protocol.
8. (Previously Presented) The method of claim 1 in which the schema information is cached in memory.
9. (Previously Presented) The method of claim 1 in which the data is loaded using multiple streams of load operations.
10. (Previously Presented) The method of claim 9 in which the multiple streams are loaded in parallel.
11. (Previously Presented) The method of claim 1 further comprising:
 - receiving the data at a client application; and
 - storing the data according to a direct path approach.
12. (Previously Presented) The method of Claim 11, the direct path approach further comprising:
 - creating a data structure; and
 - generating a data stream based on said data structure.
13. (Previously Presented) The method of Claim 12, wherein said data structure is created in memory that is associated with said client application.
14. (Previously Presented) The method of Claim 12, wherein the data structure comprises a database table and an array.
15. (Previously Presented) The method of Claim 14, wherein the array comprises user visible columns and hidden columns.
16. (Previously Presented) The method of Claim 11, wherein the data comprises semistructured data.

17. (Previously Presented) The method of Claim 11, wherein the client application specifies actions to be performed when an error occurs.
18. (Previously Presented) The method of Claim 11, wherein data are stored in the database without causing a Structured Query Language (SQL) engine to load the data.
19. (Previously Presented) The method of Claim 1, further comprising storing data into the database using conventional path loading.
20. (Previously Presented) The method of Claim 19, further comprising:
parsing data that comprises one or more instances of a type.
21. (Previously Presented) The method of Claim 20, wherein the client application generates Structured Query Language (SQL) commands.
22. (Previously Presented) The method of claim 1 further comprising:
releasing resources associated with the schema information or load structure based on timed out information.
23. (Previously Presented) The method of Claim 22, further comprising:
releasing resources associated with the schema information or load structure based upon a least recently used (LRU) approach.
24. (Previously Presented) A system for storing data into a database, comprising:
means for identifying the data to load into the database, wherein the data is associated with a schema information;
means for identifying the schema information for the data;
means for determining whether the schema information and a schema-specific load structure that are used to load the data into the database already exist;
means for acquiring the schema information from the data based on a first criteria, wherein the first criteria is associated with the means for determining whether the schema information already exists;
means for generating an in memory representation of the schema information to load the data into the database based on the first criteria;

means for generating the schema-specific load structures to load the data into the database based on a second criteria, wherein the second criteria is associated with the means for determining whether the schema-specific load structure already exists; and

means for storing the generated schema information and schema-specific load structures for subsequent loads of the data.

25. (Previously Presented) A computer program product comprising a computer usable medium having executable code to execute a process for storing data into a database, the process comprising:

instructions for identifying the data to load into the database, wherein the data is associated with a schema information;

instructions for identifying the schema information for the data;

instructions for determining whether the schema information and a schema-specific load structure that are used to load the data into the database already exist;

instructions for acquiring the schema information from the data based on a first criteria, wherein the first criteria is associated with determining whether the schema information already exists; and

instructions for generating an in memory representation of the schema information to load the data into the database based on the first criteria;

instructions for generating the schema-specific load structures to load the data into the database based on a second criteria, wherein the second criteria is associated with determining whether the schema-specific load structure already exists; and

instructions for storing the generated schema information and schema-specific load structures for subsequent loads of the data.